

CAST's UDL LESSON BUILDER

Lesson Overview

Title:	Rocks Rock
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Subject:	Science
Grade Level(s):	5-8
Duration:	1-3 Days (Dependent upon class prior knowledge, speed of acquisition, and class period length)
Subject Area:	Earth Science
Unit Description:	Students will learn about types of rocks, the rock cycle, and how rocks are formed and reshaped by erosion & weathering. They will also learn how plate tectonics affect the Rock Cycle.
Lesson Description for Day:	Students will use information and activities within the Rocks Rock Glogster to review or increase their knowledge base.
State Standards:	6.10B TEKS: classify rocks as metamorphic, igneous, or sedimentary by the processes of their formation; 8.9C TEKS: erosional features and predict how these features may be reshaped by weathering Technology 5A TEKS: identify, create, and use files in various formats such as text, bitmapped/vector graphics, image, video, and audio files;

Goals

Unit Goals:	<ol style="list-style-type: none">1. Students will be able to identify the three major types of rocks, how they are formed and reshaped, and demonstrate how plate tectonics affects the Rock Cycle.2. Students learn the components of the rock cycle and how rocks can change over time under the influence of weathering, erosion, pressure and heat.
Lesson Goals:	<ol style="list-style-type: none">1. Students will apply their understanding of rock formation processes to generalize about the forces that form them, and to making predictions how alterations in those forces could affect the rock cycle.2. Students will use various technologies including streaming media, glogs, virtual museums, eBooks, online quizzes, and the world wide web to meet the Unit Goal.

Methods

Anticipatory Set:	Encourage students to reflect on what they learned from previous encounters with the Rock Cycle and Plate Tectonic affects on the Rock Cycle. Give students one of the following options: discuss their prior knowledge with partners, write a brief summary, record an audio or a video summary, or sketch and label a drawing. (Strategic Networks) Then, invite volunteers to provide summarizing statements related to rock formation processes. Ask students to keep this information in mind as the class works to apply what they learned to meet this unit's goals.
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Introduce and Model New Knowledge:	Refine student understanding of rock formation processes by sharing some basic information about the rock cycle using the Rocks Rock Glogster.
Provide Guided Practice:	Introduce the Glogster poster and explain how to navigate through the embedded tools, media, and links. Use the “Rockin’ with Nye” video for whole class instruction, and then allow students to independently explore the Rocks Rock Glogster. (Recognition Networks)
Provide Independent Practice:	Students will explore the Rocks Rock Glogster to refine and add to their prior knowledge. Students will use various media and technologies that address their individual learning styles during independent practice. Encourage students to explore as much of the glog as possible, but allow students flexibility with repetitive uses of the same technologies embedded in the glog. (Some students may learn more from the videos and prezis, whereas other students may learn more from the embedded resource links with projects and hands-on exploration.) (Affective, Recognition & Strategic Networks)

Assessment

Formative/Ongoing Assessment:	Classroom observations, on-going blog entries, daily Think-Pair-Share activities (Strategic Networks)
Summative/End Of Lesson Assessment:	Have the students take the “Rockin’ Quiz” link that is embedded in the Rocks Rock Glogster. Students can also blog about what they have learned if the teacher has set-up a class blog. Students can also revise their original anticipatory activity by adding new information acquired during this unit.

Materials

Rocks Rock Glogster: http://azbylut77.edu.glogster.com/rockcycle/
Plate Tectonics Affect on Rock Cycle: http://www.ehow.com/how-does-5410576-plate-tectonics-affect-rock-cycle.html
Other Resources: Rock Rap: http://www.msncucleus.org/membership/storybooks/ricky.html Pop Rock Lesson: http://www.lessonplanspage.com/ScienceTheRockCycleWithGumAndPopRocks38.htm Other Rock Cycle Prezis: http://prezi.com/svhvgmj01s44/the-rock-cycle/ or http://prezi.com/aolcyp2rvty/rock-cycle/ Think Quest Interactive Rock Cycle: http://www.classzone.com/books/earth_science/terc/content/investigations/es0602/es0602page01.cfm

Possible Teacher Professional Development

Intro to Glogster: http://www.youtube.com/watch?v=SZ4eljMaX4U&feature=related
Blogs in plain English: https://www.youtube.com/watch?v=NN2I1pWXjXI
Think-Pair-Share: http://olc.spsd.sk.ca/DE/PD/instr/strats/think/
CAST Lesson Builder: http://lessonbuilder.cast.org/